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ABSTRACT

The paper describes an observation instrument originally developed as a research tool to assess both the special setting and the regular classroom. The instrument can also be used in determining appropriate placement for students with learning disabilities and for programming the transfer of skills learned in the special setting to the regular classroom. The instrument measures: teacher task statements, student compliance, direction (to the individual or the group) of task statements, response type required by the student, type of task statement, and teacher consequence following student response. After a discussion of the theoretical framework, the observation instrument is detailed, and a pilot study using the instrument to code classroom video tapes is reported. Analysis of pilot study results indicated two areas of difference between special and regular settings--the type of responses. Includes 20 references. (DB)

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OBSERVING SPECIAL AND REGULAR EDUCATION CLASSROOMS

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Paper presented at the meeting of the American Educational Research Association, Boston, April 1990.

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Though the term "mainstreaming" does not appear in P.L. 94-142, the law specifies that "to the maximum extent appropriate, handicapped children... are educated with children who are not handicapped." For the student with learning disabilities the concept of least restrictive environment has come to mean placement in mainstream classes for much of the school day. The remainder of the day is usually spent in a special education setting. Mainstreaming, however, should involve more than the physical placement of a child with a handicap into the regular classroom. The most widely accepted definition is, "...the temporal, instructional, and social integration of eligible exceptional children with normal peers..." (Kaufman, Gottlieb, Agard, & Kukic, 1975, p.4).

Appropriate placement of students with learning disabilities into a mainstream setting, especially at the secondary level, must consider the instructional and social integration of students. Most mainstreaming decisions, however, are administrative ones. Students are mainstreamed into classes which fit their schedule.

Assessment, when it does occur, has usually been limited to student readiness. "Does he have the reading skills necessary to read the science textbook?" "Are her math skills at grade level?" "Does she exhibit appropriate social behaviors?" Classrooms into which the students are to be mainstreamed have seldom been assessed to determine an appropriate match. When the receiving teacher's classroom is assessed, the assessment is most often of the teacher's attitudes or expectations. Often a student who is successful in a resource classroom is placed in the mainstream setting and fails to achieve both academically and socially.

The purpose of this study was to develop an observation instrument which could be used to assess both the special setting and the regular classroom. The instrument measured specific verbal behaviors of the teachers, the compliance of learning disabled students in both settings, and the consequences which followed compliance or non-compliance. A comparison of the similarities and the differences which exist between the two settings may provide the information necessary for programming transfer of skills learned in the special setting to the regular classroom.

Theoretical Framework

Since most students with handicaps have historically been educated in self-contained classrooms or in special schools, much of the research on mainstreaming to date has focused on comparing students who spend all of their time in special classes with students who spend all of their time in regular classes. Student outcome variables such as student achievement and self-concept were compared between the two groups (Corman & Gottlieb, 1978; Semmel, Gottlieb, & Robinson, 1979; Carlberg & Kavale, 1980). This research has yielded mixed results. Citing a National Research Council Report, Finn and Resnick (1984) state, "Research on mainstreaming yields 'no clear favoring of either separate classes or full-time mainstreaming; each has shown more favorable effects in some studies and less favorable effects in others' " (p. 9). Ferguson, Ferguson, and Bogdan (1987) contend that continuing the practice of mainstreaming students with handicaps should not be argued on empirical grounds. The integration of students with handicaps, like the integration of racial minorities is inherently right. Mainstreaming thus becomes an issue of how handicapped children can best be integrated into the mainstream, rather than if they should be mainstreamed.

Much of the research on how to integrate students with handicaps has focused on the attitudes and expectations of the regular classroom teacher. Many of these studies indicated that regular classroom teachers were not supportive of mainstreaming (Shotel, Iano, & McGettigan, 1972; Gickling & Theobald, 1975; Hudson, Graham, & Warner, 1979). Other studies have determined that regular classroom teachers believe they lack the skills and abilities necessary to work with handicapped children (McGinity & Keogh, 1975; Alexander & Strain, 1978; Payne & Murray, 1974; Stephens & Braun, 1980). Studies of teachers' attitudes have revealed that the regular classroom teachers believe that handicapped students place additional demands on the classroom teacher and interfere with the instruction of other students. Zigmond, Leven, & Laurie (1985) surveyed 429 secondary teachers who had students with learning disabilities in their classes. They found that 68% believed that the students placed additional demands on the teacher. Seventy-five percent believed that the learning disabled students differed from other students

in the classroom. In spite of the belief in these differences, less than 30% of the teachers reported making adjustments to teaching practices.

Several studies have attempted to change teacher attitudes through in-service and pre-service workshops. Glass and Meckler (1972) presented an eight-week summer workshop to 18 elementary teachers. The results of scores on the Minnesota Teacher Attitude Inventory indicated that teachers were more accepting of mainstreaming after participating in the workshop. Harasymiw and Horne (1976) provided workshops for both special and regular education teachers. Their findings revealed that teachers' attitudes became more liberal toward the assessment of manageability of the disabled but basic attitudes toward disability groups were not changed. Leyser, Abrams, and Lipscomb (1982) in working with preservice teachers found that increased knowledge about mainstreaming and handicapping conditions, along with contact with handicapped children changed the attitudes of the preservice teachers toward special populations.

Teacher expectations have also been examined. Salend and Lutz (1982) surveyed 115 regular and special educators to identify social skills necessary in elementary mainstream settings and a later study by Salend and Salend (1986) identified skills necessary in secondary mainstream settings. Kerr and Zigmond (1985) assessed the attitudes and expectations of 220 regular education teachers and 24 special education teachers regarding secondary students with handicaps. The results indicated that both special and regular education teachers considered similar skills as critical in the mainstream setting. These skills included those that related to good study skills, compliance with teacher requests, and self-control. A suggestion for future research included a focus on objective measures of the correspondence between educators' expectations and the overt behaviors they exhibit while teaching.

Though teacher attitudes have been examined and changed, there has been little research to determine how the change in the teacher's attitude affects the actual behaviors of the teachers in the classroom. Zigmond, et al. (1985) indicate that teachers are not making adjustments for students in their classes. If students do not have certain skills when they enter the mainstream classroom, it is unlikely that the teachers will modify their behaviors to accommodate these students.

Hundert (1982) and Anderson-Inman, Walker, and Purcell (1983) have suggested that the environment into which the students will be mainstreamed should be assessed to determine the kinds of skills and behaviors that are necessary for students' success. Few studies exist in which the behavior of teachers who have students with handicaps in their classroom has been observed. Even fewer studies have examined the interactions in this environment between teachers and mainstreamed students.

One reason for the paucity of studies in this area may be the lack of an instrument to measure interactions between teachers and students. Most direct observation instruments examine discrete teacher behaviors or discrete student student behaviors. This approach ignores the bidirectionality of teacher-student interactions in the classroom. To address the issues of concern, an instrument which deals with the type of tasks students are asked to perform in each setting, their compliance to the task, and the consequence of performing the task would be useful in determining the appropriate mainstream setting.

Observation Instrument

The observation instrument developed for this study was composed of six categories:

1) Teacher Task Statement- Teacher Task Statements were defined as instructional or management related imperative or interrogative statements made by the teacher. The teacher-stated task was recorded verbatim.
2) Student Compliance- Student Compliance was defined as non-verbal behavior which corresponded with the behavior specified by the task statement or verbal reciprocal behavior emitted in response to the teacher's interrogative. The type of compliance was categorized as "full," "partial," or "non-compliance"
3) Direction of the Task Statement -Task statements were classified as directed to the entire class or to the individual target student.
4) Response Type Required by the Student- Task statements were classified as requiring a verbal or non-verbal response.
5) Type of Task Statement- Task statements were classified as instructional, instructional/question, instructional management, disciplinary management, or housekeeping management.

a) instructional task statements were defined as statements which specified or implied reading, writing, or speaking behaviors directly related to the lesson being taught.

b) instructional/question tasks were defined as lesson related questions asked by the teacher without designating a specific student to answer.

c) instructional management tasks statements were defined as statements which specified or implied behaviors which enabled the student to prepare for instruction.

d) disciplinary management task statements were defined as statements made to correct inappropriate behaviors or statements which specified appropriate behaviors necessary to maintain order in the classroom.

e) housekeeping management task statements were defined as statements which specified behaviors appropriate for maintaining order of classroom materials.

6) Teacher Consequence Following Student Response-Following a response to an instructional task statement, the teacher consequences were classified as : teacher recorded, teacher looked at or listened to a response and made a comment, teacher looked at or listened to a response with no comment or the response was unobserved (See Fig. 1 for an example of a coding sheet).

By calculating the frequency and percentage of each category, teacher and student behaviors can be compared across settings. Some examples of specific questions which can be addressed are:

1) Does the student have equal opportunity to respond in each setting?
2) Does the student receive more individual attention in either setting?
3) Does the student comply with different types of tasks in different settings?
4) Are the consequences which follow compliance the same in each setting?

Pilot Study

The observation instrument was used to code video tapes recorded in 24 sessions each of a resource classroom, a health classroom, and a science classroom. Two eighth grade students who were identified as learning disabled and who attended all three classes were designated as the target students. When the coding was completed, frequency and percentage of each category were calculated and graphed for visual inspection.

Day___ Class_____ Page____ of_____

Time	Task Statement	Comp. A	Comp. B	Response Type	Direction	Task Type	Conseq.
1:57	Turn Around	-		NV	I	DM	
2:01	Use that one	+		NV	I	DM	
2:44	Now listen	+	-	NV	W	DM	
3:00	We need to go over your check-up questions so get those on your desk	-	+	NV	W	IM	
3:15	P. 92, you need to be on page 92	+	+	NV	W	IM	

10:07	What group of non-English people came to the colonies in the 1700's	+	+	NV	W	I/Q	
10:08	Scott?		+	V	I	I	LL-C
11:00	Why did the newcomers to the colonies go to the frontier?	+	+	NV	W	I/Q	
11:01	Sean?	+		V	I	I	LL-C

Compliance Codes
+ full compliance
p partial compliance
- non compliance

Response Codes
V Vocal
NV Non-Vocal

Direction Codes
W Whole Group
I Individual

Task Type Codes
I Instructional
I/Q Instructional Question
IM Instructional Management
HM Housekeeping Management
DM Disciplinary Management

Consequence Codes
TR Teacher Record
LL-C Look/Listen, comment
LL-NC Look/Listen, no comment
U Unobserved

Figure 1. Sample Coding Sheet

Comparisons were made among the settings and between the students. The researcher coded all 72 tapes. Five independent coders were trained and each coded five different randomly selected tapes. Inter-rater agreement was calculated using the formula: (Agreements/ Agreements + Disagreements) X 100.

Results of the Pilot Study

Inter-rater agreement scores were calculated for twenty percent of the tapes. All scores in all categories were above 80 percent.

The results indicated similarities in the number of task statements issued to the students in the three settings. In all three settings for both students, the rate per minute was above 0.62-more than one task statement every two minutes. The overall compliance for both students was also similar. More than two-thirds of the tasks were fully complied with in all three settings (See Tables 1 and 2).

Differences were noted in the type of task statement issued in each setting, the compliance to specific types of task statements, and the teacher consequence which followed the student response. The predominant type of task statement used in the resource room was the instructional/ question, a question posed to the entire class without designating a particular student to answer. The implied task statement is, "raise your hand if you wish to answer the question." In the mainstream settings, the predominant type of task statement was the instructional task; statements which specified or implied reading, writing, speaking, or listening. There were differences between the mainstream settings and the special setting in compliance to instructional task statements. Both students had a higher degree of compliance in the resource classroom than in either of the mainstream classrooms (See Table 3). The most noticeable difference occurred in the type of consequence which followed the students' responses. More than fifty percent of the responses to instructional task statements were recorded by the teacher in the resource room. Less than twenty percent were recorded in both mainstream settings. In the resource room, less than ten percent of the responses were unobserved, while in the mainstream settings, more than sixty percent were unobserved (See Table 4).

Table 1

Rate of Task Statements Per Minute in the Resource, Health, and Science Classrooms

Resource Classroom

	Student A	Student B
Total Minutes	1007.00	998.70
Total Task Statements	776.00	921.00
Rate per minute	00.77	00.92

Health Classroom

	Student A	Student B
Total Minutes	1009.20	1064.50
Total Task Statements	646.00	663.00
Rate per minute	00.64	00.62

Science Classroom

	Student A	Student B
Total Minutes	1064.80	1063.50
Total Task Statements	723.00	702.00
Rate per minute	00.68	00.66

Table 2

Frequency and Percentage of Full Compliance With Task Statements

	Resource	Health	Science
Student A			
Total Number of Task Statements	776	646	723
Frequency of Full Compliance	626	490	563
Percentage of Full Compliance	80.7	75.9	77.9
Student B			
Total Number of Task Statements	921	663	702
Frequency of Full Compliance	758	499	464
Percentage of Full Compliance	82.3	75.3	66.1

Table 3

Frequency and Percentage of Full Compliance With Instructional Task Statements

	Resource	Health	Science
Student A			
Total Number of Instructional Task Statements	187	178	237
Frequency of Full Compliance	166	103	179
Percentage of Full Compliance	88.8	57.8	75.5
Student B			
Total Number of of Instructional Task Statements	246	186	233
Frequency of Full Compliance	181	98	110
Percentage of Full Compliance	73.6	52.7	46.2

Table 4

Teacher Consequences Following Student Responses to Instructional Task Statements

	Type of Teacher Consequence	Percentage of Total Student A	Student B
Resource			
	Teacher Record	64.2	49.2
	Look/Listen Comment	17.1	35.0
	Look/Listen No Comment	10.2	9.3
	Unobserved	8.6	6.5
Health			
	Teacher Record	21.3	19.4
	Look/Listen Comment	10.1	7.5
	Look/Listen No Comment	7.3	6.5
	Unobserved	61.2	66.7
Science			
	Teacher Record	16.0	17.7
	Look/Listen Comment	10.1	10.5
	Look/Listen No Comment	10.5	9.2
	Unobserved	63.3	62.6

Discussion

The results of the pilot study data suggest two areas of change which could be made by the special education teacher. These recommendations might enable the students to transfer appropriate skills demonstrated in the resource room to the mainstream settings.

The first recommendation involves the type of task required by the student. In the resource room, the type of task statement used most often was the instructional/question. This allows the teacher to probe for responses with little risk to the student. There is no penalty for not raising a hand. In the mainstream classrooms, the predominant type of statement was the instructional task statement. The expected response in most instances to instructional statements was a written response. Since both students had the lowest compliance rate to instructional statements, the use in the resource room of more written responses rather than oral responses to probe the students could better prepare them for the mainstream setting.

A second area of difference between the special and regular classes was the type of consequence for student responses to instructional tasks. The most frequent consequence in the resource room was "teacher record." The students had little difficulty discriminating which tasks "counted"--they all did. In the mainstream settings, the converse was true. Most tasks did not count. The students received little feedback when they did comply with a task, since most tasks were unobserved. Since students were held accountable for all written responses in the resource room, they were much more likely to comply with those tasks. Since an intermittent accountability system seems to be more common in the mainstream setting, the special education teacher should consider less frequent recording of student responses.

Revisions for Use in the Field

While the instrument was developed as a research tool, with modification it could be useful as a means of determining class placement for handicapped students. By eliminating the verbatim transcription of the task statement, coding could be done in the natural setting. Figure 2 represents a possible consideration for a field coding sheet. Some additional categories have been added. In the type of response column, the addition of "written" response has been added. Since the permanent

Direction		Type Response			Task Type	Compliance	Consequence	
Whole	Individual	Vocal	Non-Vocal	Written			Recorded	Unrecorded
	✓		✓		DM	-		N
	✓		✓		DM	+		N
✓			✓		DM	+		N
✓			✓		IM	-		N
✓			✓		IM	+		N
✓			✓		I/Q	+		N
	✓	✓			I	+		+
✓			✓		I/Q	+		N
	✓	✓			I	+		+

Task Type
I-Instructional
I/Q-Instructional Question
IM-Instructional Management
HM-Housekeeping Management
DM-Disciplinary Management

Compliance
+ Full Compliance
- Non-Compliance
p Partial Comp.
UK Unknown

Consequence
(Recorded)
+ Positive
- Negative
N Neutral/None

Figure 2. Revised Coding Form

products were available to the researcher during the pilot study, this category was not necessary. However, if the products are not available, this category can help distinguish the kind of responses which are made by the student. For the same reason, an additional sub-category, "unknown," has been added to the compliance category. This would be used when the observer is unable to distinguish between compliance and non-compliance. In the category of teacher consequence, the categories "positive," "negative," and "neutral" would provide more complete information than "comment" and "no comment."

Quantifying and comparing data about specific teacher and student interactions may allow special educators to match students with the appropriate mainstream classroom. The original and the revised coding forms both allow for the recording of complete episodes rather than discrete behaviors. When noticeable differences occur between the two settings, changes in the special education setting may help to better prepare the students for the mainstream.

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